RNN Forward Propagation

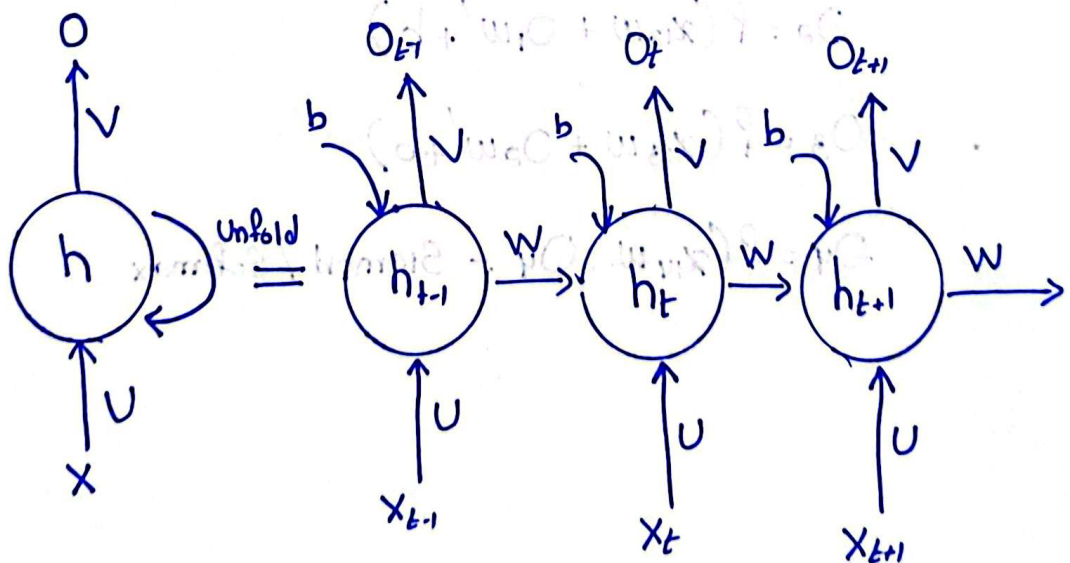| Text	Output
The food is good	1
The food is bad	0
The food is not good	0

Words $\longrightarrow$ vectors

Let's use OHE $\longrightarrow$ one hot encoding

Unique words: The, food, is, good, bad, not

$$\Big[[1\ 0\ 0\ 0\ 0][0\ 1\ 0\ 0\ 0][0\ 0\ 1\ 0\ 0][0\ 0\ 0\ 1\ 0][0\ 0\ 0\ 0\ 1]\Big]$$

The food is good

x_{11} x_{12} x_{13} x_{14}

x_{11} x_{12} x_{13} x_{14}
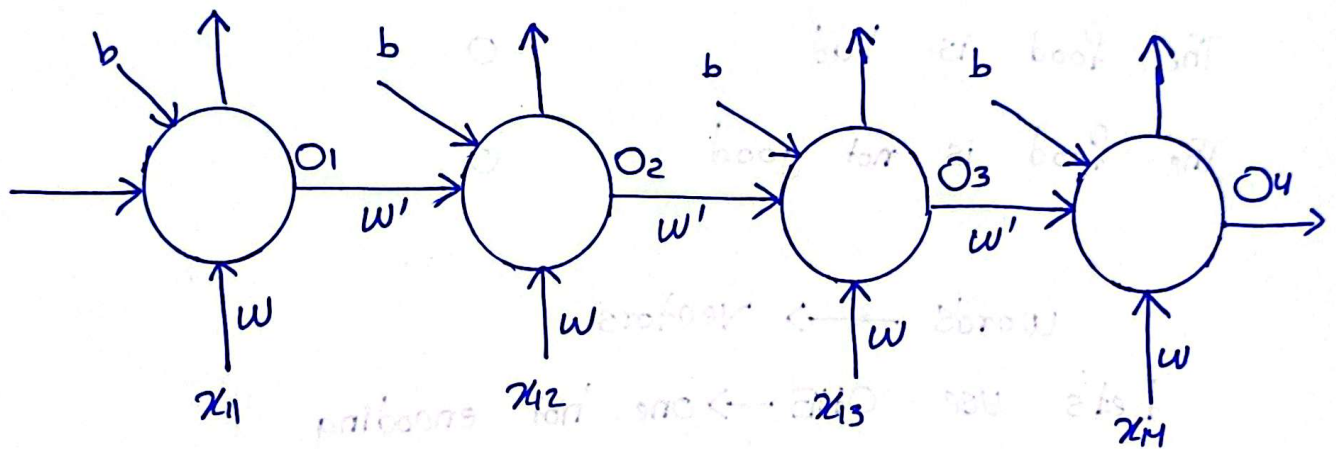
t_1 t_2 t_3 t_4

$$O_1 = f(x_{11} w + b_1)$$

$$O_2 = f(x_{12} w + O_1 w' + b)$$

$$O_3 = f(x_{13} w + O_2 w' + b)$$

$$\cancel{O_4 = f(x_{14} w} \quad O_4 = Sigmod / Softmax$$